



## California Sportfishing Protection Alliance

*"An Advocate for Fisheries, Habitat and Water Quality"*

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20 July 2006

Mr. Robert Schneider, Chairman  
Ms. Pamela Creedon, Executive Officer  
Mr. Kenneth Landau, Assistant Executive Officer  
Ms. Amy Simpson  
Regional Water Quality Control Board  
Central Valley Region  
11020 Sun Center Drive, Suite 200  
Rancho Cordova, CA 95670-6144

VIA: Electronic Submission  
Hardcopy to follow

RE: Renewal of Waste Discharge Requirements (NPDES No. CA0079651) and Time  
Schedule Order for Linda County Water District Wastewater Treatment Plant

Dear Messrs Schneider, Landau and Mesdames Creedon, Simpson;

The California Sportfishing Protection Alliance, Watershed Enforcers and San Joaquin Audubon (hereinafter "CSPA") has reviewed the Central Valley Regional Water Quality Control Board's (hereinafter "Regional Board") tentative NPDES permit (hereinafter "Order" or "Permit") for the Linda County Water District Wastewater Treatment Plant (hereinafter "Discharger") and submits the following comments.

The Permit is a significant improvement over recent Regional Board tentative permits we have reviewed. The reasonable potential analyses are thorough and well documented. The Fact Sheet is descriptive and sufficient to enable a reviewer to understand the rationale underlying the Permit. While we have serious concerns that the permit is nonprotective of water quality and aquatic communities and fails to comply with a number of state and federal statutory and regulatory requirements, these failures seem to be attributable to management directives rather than the professional competency of the permit writer. We also note that the new Permit format is needlessly redundant and confusing and represents a step backwards in issuing tentative permits that are concise and easily understood by the general public.

CSPA requests status as a designated party for this proceeding. CSPA has been and is presently involved in enforcement actions and regulatory proceedings involving discharges to the Feather, Yuba and Sacramento Rivers and Sacramento-San Joaquin Delta estuary. A number of CSPA members reside, boat, fish and recreate in and along these waterways.

Our principal concerns are:

1. The Receiving Waters Are Habitat For Listed Species And Require The Most Stringent Protection
2. The Proposed Compliance Schedules Are Illegal
3. Granting Of Assimilative Capacity Is Premature
4. The Proposed Order 100% Of The Feather River's Assimilative Capacity For Electrical Conductivity (EC)
5. A Significant Number Of The Effluent Limitations Are Not Limited For Mass
6. The Permit Fails To Contain A Defensible Antidegradation Analysis
7. The Limitation For Acute Toxicity Is Inconsistent With Basin Plan And Federal Requirements
8. The Order Fails To Contain An Effluent Limitation For Chronic Toxicity
9. Monitoring Requirements Are Inadequate
10. The Order Violates State And Federal Endangered Species Acts

Our detailed comments follow:

**1. The Receiving Waters Are Habitat For Listed Species And Require The Most Stringent Protection**

The Fact Sheet, pages F-9 to F-11, affirms that the point of discharge occurs at a particularly sensitive location on the Feather River. Shanghai Bend and Shanghai Falls are identified Critical Habitat for Central Valley spring-run Chinook and Central Valley steelhead. DFG and DWR staff have noted that fall, late fall, and spring-run Chinook salmon, steelhead trout, striped bass, American shad and green and white sturgeon frequently congregate in the area for extended periods of time. Juvenile salmonids use the area for rearing and migration. Because of the length of time fish spend in river at below Shanghai Falls and at Shanghai Bend, they are subject to extended exposure to any discharged pollutants. Any permit issued for discharges to this sensitive area must include the most stringent protections allowable by the regulations. Unfortunately, the proposed Order contravenes state and federal regulations and is not protective of fish or receiving waters.

**2. The Proposed Compliance Schedules Are Illegal**

The Discharger's present outfall is inoperative and, consequently, effluent has not been legally discharged to the Feather River for many years.<sup>1</sup> An existing but unused NPDES permit does not obviate the fact that the new treatment works and new outfall is a New Source subject to New Source requirements. The California Toxic Rule (CTR), page 31703 Federal Register/Vol 65, No. 97, states "[a] 'new California discharger' includes 'any building, structure, facility, or installation from which there is, or may be, a discharge of pollutants', the construction of which commences after the effective date of this regulations.'" New California dischargers are "required to comply immediately upon

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<sup>1</sup> Occasional overflows from the storage ponds located in the flood plain were not authorized under the present NPDES permit and represent unauthorized, i.e., illegal bypasses.

commencement of discharge with effluent limitations derived from the criteria in this rule.”

Alternatively, the proposed resumption of discharges, following an extended hiatus of many years, represents a recommencing discharger subject to regulations pertaining to recommencing dischargers. The California Toxic Rule (CTR), page 31704 Federal Register/Vol 65, No. 97, states “... a recommencing discharger shall install and implement all pollution control equipment to meet the conditions of the permit before discharging. The facility must also meet all permit conditions in the shortest feasible time (not to exceed 90 days).”

The Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP) states “[c]ompliance schedules shall not be allowed in permits for new dischargers.” SIP at 2.1, page 20. Since the Discharger has not legally discharged to the Feather River for many years, it is a new or, at the very least, a recommencing discharger.

Alternatively, the Permit is inconsistent with the CTR, as it pertains to existing dischargers. The CTR Imposes a May 2005 Expiration Date for All Compliance Schedules. CTR § (e)(3) states: “[w]here an existing discharger reasonably believes that it will be infeasible to promptly comply with a new or more restrictive [water quality based effluent limitation (“WQBEL”)] based on the water quality criteria set forth in this section, the discharger may request approval from the permit issuing authority for a schedule of compliance. 40 C.F.R. 131.38(e)(3). CTR § (e)(5) states: “[i]f the schedule of compliance exceeds one year from the date of permit issuance, reissuance or modification, the schedule shall set forth interim requirements and dates for their achievement. 40 C.F.R. 131.38(e)(5). Thus, a discharger may request that the Regional Board approve a compliance schedule, by which the discharger is allowed to gradually come into compliance with water quality-based effluent limitations for CTR-listed pollutants over a period of time, with interim effluent requirements if the compliance schedule exceeds one year. However, § (e)(8) of the CTR states: “[t]he provisions in this paragraph (e), Schedules of compliance, shall expire on May 18, 2005. 40 C.F.R. 131.38(e)(8). Therefore, because the CTR provisions allowing for compliance schedules and interim effluent limitations expired on May 18, 2005, it is illegal to issue a permit that contains compliance schedules or interim effluent limitations for Priority Pollutants after that date.

Alternatively, the Permit is inconsistent with the SIP as it pertains to existing dischargers. Section 2.1 of the SIP states, “[i]n no case... shall a compliance schedule for [dischargers of CTR-listed pollutants] exceed, from the effective date of this Policy: (a) 10 years to establish and comply with CTR criterion-based effluent limitations.” Because the effective date of the SIP was in 2000, the SIP requires that no compliance schedule shall extend past 2010. As explained above, the CTR provides that it is illegal to issue a permit that contains compliance schedules or interim effluent limitations after May 18, 2005, 40 C.F.R. 131.38(e)(8), and that compliance schedules and interim effluent limitations may last no longer than five years, 40 C.F.R. 131.38(e)(6). Thus, the SIP can

be interpreted to be consistent with the CTR. The last five-year compliance schedule could begin in 2005 and end in 2010, consistent with the provisions of both the SIP and the CTR. However, the Regional Board staff's application of the SIP to the Linda County Permit is inconsistent with the CTR. Pursuant to 40 C.F.R. 131.38(e)(8) of the CTR, no permit containing compliance schedules or interim effluent limitations may be issued after May 18, 2005. Therefore, the proposed compliance schedules and interim effluent limitations must be dropped from the Permit.

The Feather River has not had to assimilate wastes discharged by Linda County for many years. Significant negative changes have transpired since discharges last occurred; i.e., new listed species, new critical habitat designations, new 303(d) listings, new pollutant loading to the river, etc. It is unreasonable and illegal to issue a permit containing compliance schedules for CTR constituents to a "new discharger," a "recommencing discharger," or, for that matter, any discharger after 18 May 2005.

### **3. Granting Of Assimilative Capacity Is Premature**

As determinations of assimilative capacity are based upon historical monitoring data, there is a danger of over-allocating the remaining assimilative capacity in the watershed. The State Board's over appropriation of streamflow throughout the state should serve as a cautionary lesson. There has never been:

- a. A cumulative assessment of remaining assimilative capacity in the Sacramento-Feather River Basin.
- b. An evaluation of assimilative capacity that has been allocated in existing NPDES permits in the Basin but not yet utilized, or
- c. Consideration of how much assimilative capacity should to be reserved for future growth.

A number of the pollutants in the Discharger's effluent are conservative in nature and will not degrade. For example, salt discharged at Shanghai Bend will continue downstream until it enters the Sacramento-San Joaquin Delta. The Delta is identified on the 303(d) list as impaired because of salt. Salt discharged anywhere within the Sacramento-Feather River basin affects every other discharger in the basin. Unlike the Water Code, the Clean Water Act requires mandatory adjudications – otherwise known as TMDLs. Any granting of assimilative capacity for conservative constituents like salt should wait until cumulative basin-wide assessments can be conducted.

### **4. The Proposed Order 100% Of The Feather River's Assimilative Capacity For Electrical Conductivity (EC)**

The Basin Plan includes a site-specific EC water quality objective of 150  $\mu\text{mhos/cm}$  (90<sup>th</sup> percentile) for the Feather River. The proposed Order contains an effluent limitation for EC of 780  $\mu\text{mhos/cm}$  (30 day 90<sup>th</sup> percentile concentration) granting Linda County Water District "the remainder of the EC assimilative capacity of the Feather River..." (*Fact Sheet page F-34*)

The Clean Water Act (CWA), Section 303(d)(4)(B) requires that for waters where a water quality standard is attained that any effluent limitation may only be revised if such revision is subject to and consistent with the antidegradation policy.

Both the Federal (40 CFR 131.12) and State (Resolution 68-16) Antidegradation Policies require, in part that: existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected; where the quality of water exceeds levels necessary to support propagation of fish, shellfish and wildlife and recreation in and on the water, that quality shall be maintained and protected unless...it is in the interest of the people of the state to allow degradation such that all existing uses are protected; where high quality waters constitute an outstanding National resource, such as waters of National and State parks and wildlife refuges and waters of exceptional recreational or ecological significance, that water quality shall be maintained and protected. The Fact Sheet, pages F-9, 10 and 11, goes to great lengths defending the sensitive and critical fishery at the wastewater discharge point in the Feather River also pointing out the extensive recreational uses in the area indicating exceptional recreational or ecological significance.

The proposed permit grants 100% of the Feather River assimilative capacity for EC. Granting 100% of the assimilative capacity takes the receiving stream to the brink of being impaired. The permit relies on past sampling of the receiving stream in assessing the assimilative capacity and does not account for upstream growth from already permitted sources, such as Marysville and Oroville which will undoubtedly add EC thereby causing exceedance of the water quality objective. The closing statements in the Fact Sheet (page F-35) states that redistribution and reallocation of the EC limitation may occur when the permit is reopened or renewed. The EC water quality objective is currently being met in the receiving stream. Of equal importance is the demand for continued growth in Yuba and Sutter Counties. Allowing any increased flow rates, with the corresponding increase in EC, would cause exceedance of the water quality objective. Allowing potential exceedance of a water quality objective with a reopening statement that the EC limitation may be reduced for the Discharger violates the above cited regulations and Federal regulation, 40 CFR 122.4, which prohibits issuance of a permit when conditions of the permit do not provide compliance with the applicable requirements of the CWA or regulations promulgated under the CWA.

## **5. A Significant Number Of The Effluent Limitations Are Not Limited For Mass**

A number of the effluent limitations in the proposed Order do not have associated mass limitations; i.e., cis-1,2-Dichloroethene, iron, manganese, methoxychlor, MBAS, organochlorine pesticides and thiobencarb. Nor is there a mass limit for EC (or TDS) in the permit. Further, there does not appear to be an explanation of why these constituents are not limited for mass. The attempt to discuss mass based limitations, Fact sheet pages 47 and 48, is an inadequate defense for exclusion of required limitations. Mass limitations are required by Federal regulations, 40 CFR 122.45(f). 40 CFR §122.45(f)

states that: “All pollutants limited in permits shall have limitations...expressed in terms of mass except...[f] or pH, temperature, radiation, or other pollutants which cannot appropriately be expressed by mass...Pollutants limited in terms of mass additionally may be limited in terms of other units of measurement, and the permit shall require the permittee to comply with both limitations.”

U.S. EPA’s Technical Support Document for Water Quality-Based Toxics Control (TSD), states in section 5.7.1, pp. 110-111 that: “Mass-based effluent limits are required by NPDES regulations at 40 CFR 122.45(f). The regulation requires that all pollutants limited in NPDES permits have limits, standards, or prohibitions expressed in terms of mass with three exceptions, including one for pollutants that cannot be expressed appropriately as mass. Examples of such pollutants are pH, temperature, radiation, and whole effluent toxicity. Mass limitations in terms of pounds per day or kilograms per day can be calculated for all chemical-specific toxics such as chlorine or chromium. Mass-based limits should be calculated using concentration limits at critical flows. For example, a permit limit of 10 mg/l of cadmium discharged at an average rate of 1 million gallons per day also would contain a limit of 38 kilograms/day of cadmium.

Mass-based limits are particularly important for control of bioconcentratable pollutants. Concentration-based limits will not adequately control discharges of these pollutants if the effluent concentrations are below detection levels. For these pollutants, controlling mass loadings to the receiving water is critical for preventing adverse environmental impacts.

The Permit must include mass-based limitations for EC, cis-1,2-Dichloroethene, iron, manganese, methoxychlor, MBAS, organochlorine pesticides and thiobencarb.

## **6. The Permit Fails To Contain A Defensible Antidegradation Analysis**

Section 101(a) of the Clean Water Act, the basis for the antidegradation policy, states that the objective of the Act is to “restore and maintain the chemical, biological and physical integrity of the nation’s waters.” Section 303(d)(4) of the Act carries this further, referring explicitly to the need for states to satisfy the antidegradation regulations at 40 CFR § 131.12 before taking action to lower water quality. These regulations describe the federal antidegradation policy and dictate that states must adopt both a policy at least as stringent as the federal policy as well as implementing procedures. (40 CFR § 131.12(a).)

California’s antidegradation policy is composed of both the federal antidegradation policy and the State Board’s Resolution 68-16. (State Water Resources Control Board, Water Quality Order 86-17, p. 20 (1986) (“Order 86-17”); Memorandum from William Attwater, SWRCB to Regional Board Executive Officers, “federal Antidegradation Policy,” pp. 2, 18 (Oct. 7, 1987) (“State Antidegradation Guidance”).) As part of the state policy for water quality control, the antidegradation policy is binding on all of the Regional Boards. (Water Quality Order 86-17, pp. 17-18.) Implementation of the state’s antidegradation policy is guided by the State Antidegradation Guidance,

SWRCB Administrative Procedures Update 90-004, 2 July 1990 (“APU 90-004”) and USEPA Region IX, “Guidance on Implementing the Antidegradation Provisions of 40 CFR 131.12” (3 June 1987) (“Region IX Guidance”), as well as Water Quality Order 86-17.

The Regional Board must apply the antidegradation policy whenever it takes an action that will lower water quality. (State Antidegradation Guidance, pp. 3, 5, 18, and Region IX Guidance, p. 1.) Application of the policy does not depend on whether the action will actually impair beneficial uses. (State Antidegradation Guidance, p. 6. Actions that trigger use of the antidegradation policy include issuance, re-issuance, and modification of NPDES and Section 404 permits and waste discharge requirements, waiver of waste discharge requirements, issuance of variances, relocation of discharges, issuance of cleanup and abatement orders, increases in discharges due to industrial production and/or municipal growth and/or other sources, exceptions from otherwise applicable water quality objectives, etc. (State Antidegradation Guidance, pp. 7-10, Region IX Guidance, pp. 2-3.) Both the state and federal policies apply to point and nonpoint source pollution. (State Antidegradation Guidance p. 6, Region IX Guidance, p. 4.)

The federal antidegradation regulations delineate three tiers of protection for waterbodies. Tier 1, described in 40 CFR § 131.12(a)(1), is the floor for protection of all waters of the United States. (48 Fed. Reg. 51400, 51403 (8 Nov. 1983); Region IX Guidance, pp. 1-2; APU 90-004, pp. 11-12.) It states that “[e]xisting instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected.” Uses are “existing” if they were actually attained in the water body on or after November 28, 1975, or if the water quality is suitable to allow the use to occur, regardless of whether the use was actually designated. (40 CFR § 131.3(e).) Tier 1 protections apply even to those waters already impacted by pollution and identified as impaired. In other words, already impaired waters cannot be further impaired.

Tier 2 waters are provided additional protections against unnecessary degradation in places where the levels of water quality are better than necessary to support existing uses. Tier 2 protections strictly prohibit degradation unless the state finds that a degrading activity is: 1) necessary to accommodate important economic or social development in the area, 2) water quality is adequate to protect and maintain existing beneficial uses, and 3) the highest statutory and regulatory requirements and best management practices for pollution control are achieved. (40 CFR § 131.12(a)(2).) Cost savings to a discharger alone, absent a demonstration by the project proponent as to how these savings are “necessary to accommodate important economic or social development in the area,” are not adequate justification for allowing reductions in water quality. (Water Quality Order 86-17, p. 22; State Antidegradation Guidance, p. 13.) If the waterbody passes this test and the degradation is allowed, degradation must not impair existing uses of the waterbody. (48 Fed. Reg. at 51403). Virtually all waterbodies in California may be Tier 2 waters since the state, like most states, applies the antidegradation policy on a parameter-by-parameter basis, rather than on a waterbody basis. (APU 90-004, p. 4). Consequently, a request to discharge a particular chemical to

a river, whose level of that chemical was better than the state standards, would trigger a Tier 2 antidegradation review even if the river was already impaired by other chemicals.

Tier 3 of the federal antidegradation policy states “[w]here high quality waters constitute an outstanding national resource, such as waters of national and State parks and wildlife refuges and waters of exceptional recreational or ecological significance, that water shall be maintained and protected. (40 CFR § 131.12(a)(3).) These Outstanding National Resource Waters (ONRW) are designated either because of their high quality or because they are important for another reason. (48 Fed. Reg. At 51403; State Antidegradation Guidance, p. 15). No degradation of water quality is allowed in these waters other than short-term, temporary changes. (Id.) Accordingly, no new or increased discharges are allowed in either ONRW or tributaries to ONRW that would result in lower water quality in the ONRW. (EPA Handbook, p. 4-10; State Antidegradation Guidance, p. 15.) Existing antidegradation policy already dictates that if a waterbody “should be” an ONRW, or “if it can be argued that the waterbody in question deserves the same treatment {as a formally designated ONRW},” then it must be treated as such, regardless of formal designation. (State Antidegradation Guidance, pp. 15-16; APU 90-004, p. 4.) Thus the Regional Board is required in each antidegradation analysis to consider whether the waterbody at issue should be treated as an ONRW. It should be reiterated that waters cannot be excluded from consideration as an ONRW simply because they are already “impaired” by some constituents. By definition, waters may be “outstanding” not only because of pristine quality, but also because of recreational significance, ecological significance or other reasons. (40 CFR §131.12(a)(3).) Waters need not be “high quality” for every parameter to be an ONRW. (APU 90-004, p. 4) For example, Lake Tahoe is on the 303(d) list due to sediments/siltation and nutrients, and Mono Lake is listed for salinity/TDC/chlorides but both are listed as ONRW.

The State Board’s APU 90-004 specifies guidance to the Regional Boards for implementing the state and federal antidegradation policies and guidance. The guidance establishes a two-tiered process for addressing these policies and sets forth two levels of analysis: a simple analysis and a complete analysis. A simple analysis may be employed where a Regional Board determines that: 1) a reduction in water quality will be spatially localized or limited with respect to the waterbody, e.g. confined to the mixing zone; 2) a reduction in water quality is temporally limited; 3) a proposed action will produce minor effects which will not result in a significant reduction of water quality; and 4) a proposed activity has been approved in a General Plan and has been adequately subjected to the environmental and economic analysis required in an EIR. A complete antidegradation analysis is required if discharges would result in: 1) a substantial increase in mass emissions of a constituent; or 2) significant mortality, growth impairment, or reproductive impairment of resident species. Regional Boards are advised to apply stricter scrutiny to non-threshold constituents, i.e., carcinogens and other constituents that are deemed to present a risk of source magnitude at all non-zero concentrations. If a Regional Board cannot find that the above determinations can be reached, a complete analysis is required.

Even a minimal antidegradation analysis would require an examination of: 1) existing applicable water quality standards; 2) ambient conditions in receiving waters compared to standards; 3) incremental changes in constituent loading, both concentration and mass; 4) treatability; 5) best practicable treatment and control (BPTC); 6) comparison of the proposed increased loadings relative to other sources; 7) an assessment of the significance of changes in ambient water quality and 8) whether the waterbody was a ONRW. A minimal antidegradation analysis must also analyze whether: 1) such degradation is consistent with the maximum benefit to the people of the state; 2) the activity is necessary to accommodate important economic or social development in the area; 3) the highest statutory and regulatory requirements and best management practices for pollution control are achieved; and 4) resulting water quality is adequate to protect and maintain existing beneficial uses. A BPTC technology analysis must be done on an individual constituent basis; while tertiary treatment may provide BPTC for pathogens, dissolved metals may simply pass through.

There is nothing in the proposed Permit that resembles an antidegradation analysis that comports with state and federal regulations. The Permit acknowledges that the wastewater treatment plant does not currently discharge to surface water except in rare flooding conditions. The existing outfall is non-functional and hasn't been used for years. Consequently, the discharge is a new or, alternatively, a recommencing discharger to surface waters. The mass and concentration of all of the pollutants discussed in the proposed Permit will increase under the Order, none of which are discussed with regard to the Board's antidegradation policy.

The initial phase will allow a surface water discharge of pollutants. An expansion of the wastewater treatment plant to 5 mgd is discussed in the Order, but not with regard to antidegradation. The antidegradation discussion in the proposed permit states that: 1) the Order provides for an increase in the volume and mass of pollutants; 2) the increase will not have significant impacts on aquatic life, which is the beneficial use most likely affected by the pollutants discharged (BOD, suspended solids, chlorine residual, temperature, and metals); 3) the increase will not cause a violation of water quality objectives; 4) the increase allows wastewater utility service necessary to accommodate housing and economic expansion, and is considered to be a benefit to the people of the State; and 5) compliance with these requirements will result in the use of best practicable treatment or control of the discharge. All of these statements are unsupported conclusions without basis in fact.

The entire antidegradation analysis consists of two paragraphs of conclusory statements. Compare this to the simple antidegradation analyses of Region 8's 2002 Reclaimed Water Projects Antidegradation Guidance (44 pages) and Region 2's 2002 Napa Sanitation District Water Recycling Facility (23 pages). It fails to discuss the elimination of mass limits for cis-1,2-Dichloroethene, iron, manganese, methoxychlor, MBAS, organochlorine pesticides and thiobencarb that were included in the previous draft order. It does not explain or justify why the Discharger is granted 100% of the assimilative capacity of the Feather River for EC or the effects on other dischargers in the area. Since salt is a conservative constituent, it will migrate downstream to the

Sacramento-San Joaquin Delta Estuary. The Delta is 303(d) listed waterbody because of salt and the proposed Permit authorizes additional mass-loading of salt to a waterbody impaired by salt.

The Feather River is an Outstanding National Resource Water deserving Tier 3 protection. As we discussed above, waters cannot be excluded from consideration as an ONRW simply because they are already “impaired” by some constituents. By definition, waters may be “outstanding” not only because of pristine quality, but also because of recreational significance, ecological significance or other reasons. (40 CFR §131.12(a)(3). The Feather River is identified Critical Habitat for state and federally listed Central Valley spring-run Chinook and federally listed Central Valley steelhead. It is important habitat for federally listed green sturgeon. By any reasonable standard, the Feather River qualifies as an ONRW, despite its impairment by several pollutants. Inexplicably, the Permit fails to take even the first step of an acceptable antidegradation analysis by determining which “Tier” was appropriate; let alone complying with the explicit requirements listed above. Regardless, as an ONRW, no new or increased discharges are legally permitted.

Alternatively, the Feather River is clearly a Tier 2 waterway, as antidegradation is determined on a parameter-by-parameter basis. Any antidegradation analysis must comport with implementation requirements in State Board Water Quality Order 86-17, State Antidegradation Guidance, APU 90-004 and Region IX Guidance. The conclusory, unsupported, undocumented statements in the Permit are no substitute for a defensible antidegradation analysis.

The antidegradation review process is especially important in the context of waters protected by Tier 2. See EPA, Office of Water Quality Regulations and Standards, Water Quality Standards Handbook, 2nd ed. Chapter 4 (2nd ed. Aug. 1994). Whenever a person proposes an activity that may degrade a water protected by Tier 2, the antidegradation regulation requires a state to: (1) determine whether the degradation is “necessary to accommodate important economic or social development in the area in which the waters are located”; (2) consider less-degrading alternatives; (3) ensure that the best available pollution control measures are used to limit degradation; and (4) guarantee that, if water quality is lowered, existing uses will be fully protected. 40 CFR § 131.12(a)(2); EPA, Office of Water Quality Regulations and Standards, Water Quality Standards Handbook, 2nd ed. 4-1, 4-7 (2nd ed. Aug. 1994). These activity-specific determinations necessarily require that each activity be considered individually.

For example, the APU 90-004 states:

“Factors that should be considered when determining whether the discharge is necessary to accommodate social or economic development and is consistent with maximum public benefit include: a) past, present, and probably beneficial uses of the water, b) economic and social costs, tangible and intangible, of the proposed discharge compared to benefits. The economic impacts to be considered are those incurred in order to

maintain existing water quality. The financial impact analysis should focus on the ability of the facility to pay for the necessary treatment. The ability to pay depends on the facility's source of funds. In addition to demonstrating a financial impact on the publicly – or privately – owned facility, the analysis must show a significant adverse impact on the community. The long-term and short-term socioeconomic impacts of maintaining existing water quality must be considered. Examples of social and economic parameters that could be affected are employment, housing, community services, income, tax revenues and land value. To accurately assess the impact of the proposed project, the projected baseline socioeconomic profile of the affected community without the project should be compared to the projected profile with the project...EPA's Water Quality Standards Handbook (Chapter 5) provides additional guidance in assessing financial and socioeconomic impacts”

There is nothing resembling an economic or socioeconomic analysis in the Permit. There are viable alternatives that have never been analyzed. The Discharger could continue with land disposal or install micro-filtration treatment equipment. The evaluation contains no comparative costs. As a rule-of-thumb, USEPA recommends that the cost of compliance should not be considered excessive until it consumes more than 2% of disposable household income in the region. This threshold is meant to suggest more of a floor than a ceiling when evaluating economic impact. In the Water Quality Standards Handbook, USEPA interprets the phrase “necessary to accommodate important economic or social development” with the phrase “substantial and widespread economic and social impact.”

The antidegradation analysis must discuss the relative economic burden as an aggregate impact across the entire region using macroeconomics. Considering the intrinsic value of the Feather River and downstream waters to the entire state and the potential effects upon those who rely and use the Feather River and downstream waters, it must also evaluate the economic and social impacts to water supply, recreation, fisheries, etc. from the Discharger's degradation of water quality in the Feather River and downstream waters.

There is nothing in the Permit resembling an alternatives analysis evaluating less damaging and degrading alternatives. Surely, the Discharger provided some information as to why it chooses to abandon its present discharge-to-land scheme. Unfortunately, the Permit fails to evaluate and discuss why there is no alternative other than discharging to surface waters. Other communities have successfully disposed of wastes without discharging additional pollutants to degraded rivers. The discharger certainly has the option of purchasing offsets. A proper alternatives analysis would cost out various alternatives and compare each of the alternatives' impacts on beneficial uses.

There is nothing resembling an analysis buttressing the unsupported claim that BPTC is required. An increasing number of wastewater treatment plants around the country and state are employing reverse-osmosis (RO), or even RO-plus. Clearly, micro-

filtration can be considered BPTC for wastewater discharges of impairing pollutants into critically sensitive ecological areas containing listed species that are already suffering serious degradation. If this is not the case, the antidegradation analysis must explicitly detail how and why run-of-the-mill tertiary system that facilitate increased mass loadings of impairing constituents can be considered BPTC.

There is nothing in the Permit resembling an analysis that ensures that existing beneficial uses are protected. While the Permit identifies the constituents that are included on the 303(d) list as impairing receiving waters, it fails to discuss how and to what degree the identified beneficial uses will be additionally impacted by the discharge. Nor does the Permit analyze the incremental and cumulative impact of increased loading of non-impairing pollutants on beneficial uses. In fact, there is almost no information or discussion on the composition and health of the identified beneficial uses. Any reasonably adequate antidegradation analysis must discuss the affected beneficial uses (i.e., numbers and health of the aquatic ecosystem; extent, composition and viability of agricultural production; people depending upon these waters for water supply; extent of recreational activity; etc.) and the probable effect the discharge will have on these uses.

Alternatively, Tier 1 requires that existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected. Tier 1 is the absolute floor of water quality in all waters of the United States. No activity is allowable under the antidegradation policy that would partially or completely eliminate any existing use. Species that are in the waterbody must be fully protected; i.e., water quality cannot result in mortality or significant growth or reproductive impairment. Any lowering of water quality below this full level of protection is simply not allowed. See EPA, Office of Water Quality Regulations and Standards, Questions and Answers on: Antidegradation, p. 4, Appendix G, Water Quality Standards Handbook, 2nd ed. Chapter 4 (2nd ed. Aug. 1994).

As we have noted, the Permit allows an increase in mass loading of mercury, toxicity, organochlorine pesticides to the Feather River and of salt to the Delta. The State Board has clearly articulated its position on increased mass loading of impairing pollutants. In Order WQ 90-05, the Board directed the San Francisco Regional Board on the appropriate method for establishing mass-based limits that comply with state and federal antidegradation policies. That 1990 order stated “[I]n order to comply with the federal antidegradation policy, the mass loading limits should also be revised, based on mean loading, concurrently with the adoption of revised effluent limits. The [mass] limits should be calculated by multiplying the [previous year’s] annual mean effluent concentration by the [four previous year’s] annual average flow. (Order WQ 90-05, p. 78). USEPA points out, in its 12 November 1999 objection letter to the San Francisco Regional Board concerning Tosco’s Avon refinery, that ‘[a]ny increase in loading of a pollutant to a water body that is impaired because of that pollutant would presumably degrade water quality in violation of the applicable antidegradation policy.’”

Any defensible antidegradation analysis must include a cumulative assessment of assimilative capacity. Determinations of reasonable potential and assimilative capacity

are based upon historical monitoring data. Consequently, there is a danger of over-allocating the remaining assimilative capacity in the watershed. For example, the State Board's over appropriation of streamflow throughout the state should serve as a cautionary lesson. An legally acceptable antidegradation analysis must include: 1) a cumulative assessment of remaining assimilative capacity in the basin; 2) an evaluation of assimilative capacity that has already been allocated in NPDES permits in the basin but not yet utilized; and 3) consideration of how much assimilative capacity should to be reserved for future growth.

As we previously discussed, conclusions regarding available assimilative capacity must wait until a basin-wide assessment can be conducted. Unlike the Water Code, the Clean Water Act requires mandatory adjudications – otherwise known as TMDLs. Any grant of assimilative capacity potentially affects every discharger in the Delta and its tributaries.

## **7. The Limitation For Acute Toxicity Is Inconsistent With Basin Plan And Federal Requirements**

The Permit acknowledges that the Feather River is listed as a Water Quality Limited Segment for unknown toxicity. Federal regulations, at 40 CFR 122.44 (d)(1)(i), require that limitations must control all pollutants or pollutant parameters which the Director determines are or may be discharged at a level which will cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality. The Water Quality Control Plan for the Sacramento/ San Joaquin River Basins (Basin Plan), Water Quality Objectives (Page III-8.00) for Toxicity is a narrative criteria which states that all waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life. This section of the Basin Plan further states, in part that, compliance with this objective will be determined by analysis of indicator organisms.

The Tentative Permit requires that the Discharger conduct acute toxicity tests and states that compliance with the toxicity objective will be determined by analysis of indicator organisms. However, the Tentative Permit contains a discharge limitation that allows 30% mortality (70% survival) of fish species in any given toxicity test.

As receiving waters are listed as impaired because of unknown toxicity, there is no remaining assimilative capacity for additional toxicity. Allowing 30% mortality in acute toxicity tests allows that same level of mortality in the receiving stream, in violation of federal regulations and contributes to exceedance of the Basin Plan's narrative water quality objective for toxicity. Accordingly, the Order must be revised to prohibit acute toxicity.

## **8. The Order Fails To Contain An Effluent Limitation For Chronic Toxicity**

As previously noted, the Feather River is listed as a Water Quality Limited Segment for unknown toxicity. Federal regulations, at 40 CFR 122.44 (d)(1)(i), require

that limitations must control all pollutants or pollutant parameters which the Director determines are or may be discharged at a level which will cause, or contribute to an excursion above any State water quality standard, including state narrative criteria for water quality. The Water Quality Control Plan for the Sacramento/ San Joaquin River Basins (Basin Plan), Water Quality Objectives (Page III-8.00) for Toxicity is a narrative criteria which states that all waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life.

The Tentative Permit states that: "...to ensure compliance with the Basin Plan's narrative toxicity objective, the discharger is required to conduct whole effluent toxicity testing..." However, sampling does not equate with or ensure compliance.

The Tentative Permit requires the Discharger to conduct an investigation of the possible sources of toxicity if a threshold is exceeded. This language is not a limitation and essentially eviscerates the Regional Board's authority, and the authority granted to third parties under the Clean Water Act, to find the Discharger in violation for discharging chronically toxic constituents. An effluent limitation for chronic toxicity must be included in the Order.

## **9. Monitoring requirements are inadequate**

Federal regulations, 40 CFR §§ 122.44(i) and 122.48, require NPDES permits to include requirements to monitor sufficient to assure compliance with permit limitations and requirements, the mass or other measurement specified in the permit for each pollutant limited in the permit, and the volume of effluent discharged from each outfall. NPDES permits are required to include monitoring specifying the type, the interval, and the frequency sufficient to yield data which are representative of the monitored activity including, when appropriate, continuous monitoring.

The frequency of monitoring is insufficient to assure compliance with Permit limitations. For example, monthly monitoring of a 24-hour composite sample represents approximately 3.3% of the flow being discharged. Monthly grab samples represent less than 0.0068% of the flow. The primary basis for metals limitations is principally the protection of aquatic life, to prevent toxicity. Review of monitoring data shows that problematic metals concentrations are typically pulses reflected as spikes. Monitoring 0.0068 to 3.3% of the waste stream is clearly insufficient to assure compliance with the permit discharge limitations and to prevent toxicity.

The reasonable potential analysis has shown that there are numerous non-compliant constituents. These constituents are being discharged above water quality standards, obviously causing a problem to water quality. For many of these constituents, the sampling frequency is monthly. The basis for most water quality criteria states that constituents that exceed criteria more frequently than once every three years have a devastating impact on the receiving stream. Sampling for constituents on a monthly basis is insufficient to determine the true impacts to the receiving stream. Ammonia, like chlorine, is an extremely toxic substance. The nitrification process to remove ammonia

can have periods of instability. The Regional Board's proposed sampling frequency is inadequate to determine whether the treatment system is operated continuously in a nitrification mode.

Constituents limited in permits should be monitored continuously, where appropriate, or weekly. Standard minerals and priority pollutants should be sampled quarterly. Acute toxicity tests should be conducted weekly and, given the sensitivity of receiving waters, chronic toxicity tests should be conducted monthly, at a minimum.

The Monitoring and Reporting Program requires collection and analysis of total mercury. It must also require that methylmercury samples be collected and analyzed. Since sulfate concentrations affect methylation rates, sulfate should be analyzed concurrently with total and methyl mercury. Monthly methylmercury and sulfate sampling should also be required for receiving water monitoring.

#### **10. The Order violates state and federal endangered species acts**

As discussed above, South Delta waterways are listed on the 303(d) list as impaired because of unknown toxicity and are home to species protected by state and federal endangered species acts. There is no remaining assimilative capacity for toxicity, toxic pollutants or oxygen demanding constituents. Astonishingly, the Order allows acute toxicity, fails to limit chronic toxicity and, as we discuss below, includes effluent limits that are not protective of listed species. The Order is likely to result in the illegal "take" of listed species and will likely result in the destruction or adverse modification of critical habitat in violation of Section 9 of the federal Endangered Species Act (ESA).

Federal regulation at 40 CFR § 122.49(c) state "[t]he *Endangered Species Act*, 16 U.S.C. 1531 *et seq.* section 7 of the Act and implementing regulations (50 CFR part 402) require the Regional Administrator to ensure, in consultation with the Secretary of the Interior or Commerce, that any action authorized by EPA is not likely to jeopardize the continued existence of any endangered or threatened species or adversely affect its critical habitat."

The Order has been developed with federal funds and is issued pursuant to U.S. Environmental Protection Agency (EPA) authorization. Consequently, the Regional Board and/or EPA must enter into formal consultation with both the National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (USFWS) pursuant to Section 7 of the ESA. The discharge of toxicity and toxic pollutants by the Discharger is a violation of Section 9 of the ESA and requires an incidental take permit pursuant to Section 10 of the ESA. The Regional Board's issuance of an Order that authorizes and/or "causes" an illegal "take" is also a violation of Section 9 of the ESA. Consequently, both the Discharger and the Regional Board must secure incidental take permits from NMFS and USFWS.

The Order will also likely result in an illegal "take" of listed species pursuant to Section 2080 of the California Fish and Game Code; i.e., the California Endangered

Species Act (CESA). The Discharger must obtain a permit under Section 2081 or a consistency determination under Section 2080.1 of CESA. Unlike ESA, CESA requires that authorized take be “fully mitigated” and that all required measures be “capable of successful implementation.” Since there are no provisions for time schedules under CESA, the Discharger must comply with protective limits as soon as possible and certainly prior to any increase in the rate of discharge. The inadequate toxicity, temperature, ammonia, and dissolved oxygen limits in the Order should be revised to be fully protective of listed species. The Discharger and Regional Board must initiate consultation with the California Department of Fish and Game.

In conclusion, the Permit is seriously unprotective and must be revised to:

1. Include a defensible antidegradation analysis
2. Eliminate compliance schedules
3. Contain a protective limit for EC
4. Include mass-based limitations for all pollutants capable of being expressed in terms of mass
5. Prohibit acute toxicity
6. Contain a limit for chronic toxicity
7. The Order Fails To Contain An Effluent Limitation For Chronic Toxicity
8. Monitoring Requirements Are Inadequate
9. Comply with state and federal endangered species acts

Thank you for considering these comments. If you have questions or require clarification, please don't hesitate to contact us.

Sincerely,

Original signed by Bill Jennings

Bill Jennings, Executive Director  
California Sportfishing Protection Alliance